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Introduction

On 3 September 2009, the Full Court of the Federal Court (Lindgren, Finn and Bennett JJ) handed down its reasons for dismissing the University of Western Australia's (UWA) appeal against the trial decision of French J in *University of Western Australia v Gray (No 20)* (2008) 76 IPR 222; [2008] FCA 498 (*UWA v Gray*). Special leave to appeal to the High Court was later refused. As on the facts as found, none of the inventions were actually made during the period of Dr Gray's employment, this was not the proper case for consideration of university ownership of academic inventions.[1]

The most significant questions on the appeal were whether the inventions, the subject of the suit, were made by Dr Gray during his period of employment by the university, and if so, whether Dr Gray as the inventor or the university as his employer owned those inventions, which had been patented by Dr Gray. Also in issue were alleged breaches of specified fiduciary duties by Dr Gray. However, the particular breaches pleaded related to the misuse of university intellectual property, so they required little further consideration once the Full Court confirmed French J's decision that the inventions were in fact Dr Gray's own property. Dr Gray had been successful on all points at the trial.

Universities do not normally intend reliance on the common law to found their claims to ownership of academic inventions, but instead expressly provide for university ownership, usually by incorporation of the terms of a university statute or policy to that effect into academic employment contracts. In this case, however, French J held that the UWA Patent Regulations had not been validly passed or incorporated, and therefore the common law applied. The trial judge's findings in relation to the UWA Patent Regulations were not challenged on the appeal.

The *Patents Act 1990* (Cth), provides that in some circumstances parties other than the inventor will be entitled to an assignment of a patent.[2] The Act is mute on what those circumstances are, and in the absence of express contractual terms any claim to ownership by an entity other than the inventor must therefore be resolved by applying relevant common law principles (the default law).

In the industrial and commercial sector employers normally benefit from such an entitlement where an employment contract specifies a duty to invent, and/or a duty to conduct research for the employer. The question here was whether the same would apply in the academic sector.

Patent ownership

During the hearing of UWA's special leave application before Gummow, Hayne and Haydon JJ,[3] counsel for UWA made something of the principles expounded in *Sterling Engineering Co Ltd v Patchett* [1955] AC 534. That case remains a most persuasive authority in relation to the principles underlying employee ownership of inventions. Some few Australian courts have considered the matter.[4] Of these, Nettle J's recent Victorian Supreme Court decision in *Victoria University of Technology v Wilson* (2004) 60 IPR 392; [2004] VSC 33 (*VUT v Wilson*), also relating to academic inventions, was clearly most on point.

Two passages from *Sterling* alert us to key principles: Viscount Simonds pointed out that ownership will fall to the employer if inventions are "made by the employee in the course of his

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[1] *University of Western Australia v Gray* [2010] HCATrans 11.

[2] *Patents Act 1990* (Cth), s 15(1): Subject to this Act, a patent for an invention may only be granted to a person who: … (b) would, on the grant of a patent for the invention, be entitled to have the patent assigned to the person.

[3] *University of Western Australia v Gray* [2010] HCATrans 11, p 2.

[4] For example, *Spencer Industries Pty Ltd v Collins* (2003) 58 IPR 425; [2003] FCA 542.

employment which it was part of his duty to make" (*Sterling* at 544). And Lord Reid said (at 547) that it is:

> inherent in the legal relationship of master and servant that any product of the work which the servant is paid to do belongs to the master: I can find neither principle nor authority for holding that this role ceases to apply if a product of that work happens to be a patentable invention.

The approach of both judges rests on an analogy between physical and intellectual labour: what an employee "produces by the strength of his arm or the skill of his hand or the exercise of his inventive faculty shall become the property of his employer" (at 544 per Viscount Simonds).

The recent decisions in *UWA v Gray* and *VUT v Wilson* both considered how these principles were to be applied to academics whose contracts specify a duty to research, but not expressly to invent. Is the employing university entitled to the fruits of that research in those circumstances? VUT, like UWA had failed to do what was required to effectively incorporate university patent policies into the contract of academic employment. The answer was thus to be found in the cases, and in this regard *VUT v Wilson* presaged the decision in *UWA v Gray*. But the two decisions proceeded along rather different lines, both in terms of ownership and of fiduciary duties.

The approach in VUT v Wilson

The decision in *VUT v Wilson* proceeded on the basis that the fruits of an academic's paid research might well fall to the employing university. But this depended upon "the nature of the research that the employee is retained to perform" (*VUT v Wilson* at [108]). The content of the duty to research "is informed by the business of the employer", which in the case of Professor Wilson was the "business" of the School of Applied Economics. Nettle J then held that inventing internet based e-commerce systems was never part of the School's business, which was instead confined to typical academic research resulting in "preparation and presentation of peer reviewed learned papers" (at [110]).

Even though the development of the electronic trading system was close to the fields of economics and international trade Professor Wilson was expected to research in, it was not research of the kind he was retained to perform: this was instead "intellectual analysis which typifies social science academic inquiry" and not of a kind that could result in patentable inventions (at [116]).

Therefore the inventive activity was not "sufficiently closely related to [the social science research activity] or springs so naturally from [it] as for some purposes to be treated as if it were part of [it]" (at [112]). Further, although the nature of an employee's duties can change over time and must be assessed by reference to the work actually performed at the relevant time, and Professor Wilson had the capacity as Head of Department to accept the work on the inventions as being included in the duties he and his colleague performed on behalf of the university, by the time the inventions were mad he had determined within his authority that the work would be continued in a private capacity.

The approach in UWA v Gray

The trial in *UWA v Gray*, and for the most part also the appeal, proceeded on the basis that Dr Gray's contract of employment contained neither an implied nor express duty to invent. French J stressed the quite fundamental distinction between an academic employee's duty to conduct research which might admittedly very well result in the making of an invention, and an *actual duty* to pursue and make inventions with an eye to commercial exploitation by the employer. He did not accept that a duty to conduct research invoked a right of the employer to the fruits of that research.

In this, *UWA v Gray* differs from *VUT v Wilson*: the latter case proceeded on the basis that if the research that the academic was paid to undertake was of a kind which would normally result in the making of inventions, the university would have a valid claim to own them. The key inquiry according to *VUT v Wilson* was what kind of research the academic was paid to pursue. The case left open the possibility that the inventions of academics retained to research in "areas of the university [that] were involved in the sorts of practical or applied research that are relevant to the development and implementation" (*VUT v Wilson* at [111]) of practical inventions of the kind they in fact made, would be owned by the university. Physical sciences and information technology were given as examples of such departments. However, *UWA v Gray* does not accept this possibility.

Dr Gray's research into cancer treatment was indeed of an applied and practical kind, and not social science research. Nonetheless French J, concluded that academic employment was *always*

inconsistent with any right of the university to own inventions, and therefore Dr Gray retained ownership of them. The Full Court agreed wholly with his reasoning on this point. In other words, subsequent to *UWA v Gray* even where the university can establish that the research an academic is paid to conduct is in the applied sciences and likely to result in practical and potentially patentable inventions, the employing university simply has no claim to ownership of such inventions.[5] The reasoning in *UWA v Gray* which led to this different result is examined in more detail below.

Inventions resulting from academic research

The case before the trial judge and on appeal proceeded on the agreed basis "that there was no express or implied contractual obligation imposing on Dr Gray a 'duty to invent' ".[6] It seems, however, that under questioning from the Bench, the presence of such an implied duty was in fact asserted by UWA at the close of the appeal case, in the following terms: "at least in the applied sciences, the duty to invent is relevant to a duty to research in the sense that the latter comprehends 'a duty to make advances in the art' and that such a duty is, in fact, a duty to invent".[7]

This was a twist on the approach hitherto taken, which was that employer ownership of resulting inventions can be implied even if a contract of employment requires an academic only to research, not to invent. It was in line with the approach in *VUT v Wilson* which calls for an inquiry into whether the research the academic was paid to undertake was of a kind that would normally result in patentable inventions. The research contemplated by the contract of employment in *UWA v Gray* was certainly of a more practical and applied kind, not social science research as in *VUT v Wilson*, although admittedly, medical research often does result only in the publication of papers.[8]

French J held that whereas in industry and commerce employer ownership would normally follow from salaried research, in the university sector it would not. He stressed the inherent differences between research conducted in universities and in primarily commercial organisations, something the Full Court was also emphatic about. In this view, the distinct characteristics of academic research as an employment duty derive from the unique role and position of universities in society.[9]

Most importantly, academic research direction is a matter of personal discretion, and not determined by the need to make inventions. This is not consistent with a duty to invent as might be imposed upon a person employed to do research in industry, even in the absence of an express term to that effect. In other words, even though an academic is free to fulfil her duty to do research by pursuing technologies, practical applications, inventions or innovations,[10] none is contractually obliged to pursue this route. Even in the sciences an academic can choose to research wholly in areas without commercial implications of any kind. The duty to research is traditionally fulfilled in other ways, most notably by publication of results.[11] More generally, an academic researcher such as Dr

[5] This is where the contract of employment only requires research, and not a duty to make inventions. This is also where there is no express term dealing with ownership of inventions.

[6] *University of Western Australia v Gray* (2009) 179 FCR 346 at [124]; [2009] FCAFC 116.

[7] *University of Western Australia v Gray* (2009) 179 FCR 346 at [124]; [2009] FCAFC 116.

[8] Dr Gray's contract contained the following specified duties, common to all appointed Chairs at UWA: "A Professor will be a full-time officer of the University and will be required to devote his whole time to his University duties except in so far as he undertakes private and consultative work (as to which see clause 11). He will be responsible where applicable to the Head of the Department and will be required – (i) to teach, to conduct examinations and to direct and supervise the work in his field in accordance with the Statutes and regulations of the University and the directions of the Senate; (ii) to undertake research and to organise and generally stimulate research among the staff and students; and (iii) to perform such other appropriate work as the Senate from time to time determines."

[9] See Monotti and Ricketson, *Universities and Intellectual Property: Ownership and Exploitation* (OUP, 2003), [6.67].

[10] And pursuing patents and maintaining secrecy is one legitimate incident of choosing this type of research.

[11] Open publication and sharing being a valid way of diffusing technologies and innovations, something that is expressly recognised in some university IP regulations: see eg, Harvard Office of Technology Development, *Intellectual Property Policy, Introduction*, in particular the first principle there mentioned, http://www.techtransfer.harvard.edu/resources/policies/IP/.

Gray was not obliged "to advance the commercial purpose" of his employer, UWA (*UWA v Gray* at [1362]).[12]

Further, as stressed repeatedly in the reasons of both trial and appeal courts, if the academic employee were under a duty to invent, then that employee would be under an implicit obligation to maintain confidentiality to the extent a patent application requires it. Such an obligation of secrecy or silence "sits uncomfortably with the notion of 'academic freedom', shared ownership and free exchange of research results" (*UWA v Gray* at [159]).[13]

In fact it is clear that it would result in a clash between an implied duty to keep inventions secret, and the duty, arguably central to academic research, to publish. Such a clash could be fatally disruptive of the role of universities in society. It would also be incompatible with the unquestioned freedom, and the vested practice, of academics collaborating with those employed by other institutions. This collaboration as well is an essential feature of the pursuit of knowledge in the public interest.

Are academic employment contracts a distinct type?

It may be somewhat artificial not to conduct the inquiry in terms of whether a duty to invent can be implied, but instead to ask, as was done in *UWA v Gray*, whether as a matter of law, a term granting employer ownership of inventions should be implied into *all* contracts of employment requiring research. UWA contended that that was the case, regardless of the activity or business of the employer, and that accordingly academics were under the same implied duty to assign inventions resulting from their research as researchers in industry, in line with the principle in *Sterling*. The artificiality averted to lies in the fact that if an employer ownership term is implied in this manner researchers must by inference be under a duty to invent.

Leaving that aside, French J answered the question whether Dr Gray's "employment contract [was] one of a class or type in which the employee invention term would be implied"[14] with a resounding "no", and for the following reasons (*UWA v Gray* at [1366]).

1. The absence of any duty to invent anything.
2. The freedom to publish the results of his research and any invention developed during that research notwithstanding that such publication might destroy the patentability of the invention.
3. The extent to which Dr Gray , as a researcher and those working with him, were expected to and did solicit funds for their research, including the development of inventions, from sources outside UWA. The relevance of those considerations is not affected by the arrangements under which UWA would administer funding, eg in the case of CSIRO or NH & MRC grants.
4. The necessity, consistent with research of the kind he was doing, to enter into collaborative arrangements with external organisations such as CSIRO.[15]

The Full Court essentially endorsed this answer: an academic employment contract *is* a distinct type, because universities are distinctive institutions and because academic employment has distinctive features.[16] The essential reasons supporting the Full Court's conclusion can be summarised as: the essentially public nature of universities; the academic freedom to choose research direction and to publish; and the routine pursuit of external funding and collaboration. These are dealt with in turn below.

Universities as public institutions

Universities such as UWA serve the public purpose by offering education, research facilities and awarding degrees. Although UWA had taken on many and various commercial activities, these had not displaced its traditional functions to the extent that it became "limited to that of engaging

[12] See *University of Western Australia v Gray* (2009) 179 FCR 346 at [171].

[13] See *University of Western Australia v Gray* (2009) 179 FCR 346 at [169].

[14] See *University of Western Australia v Gray* (2009) 179 FCR 346 at [181].

[15] *University of Western Australia v Gray* (2009) 179 FCR 346 at [173].

[16] *University of Western Australia v Gray* (2009) 179 FCR 346 at [181]-[188].

academic staff for its own commercial purposes".[17] The same can be said of other universities: commercial activities such as commercialisation of research outcomes remain a means to an end rather than the end in itself for academic institutions.

Also distinctive is that academic staff are often part of the "membership that constitutes the corporation and as such are bound by the statutes, regulations etc of the university".[18] This was true of staff at UWA but as mentioned in the decision, not necessarily true of all universities.

Academic freedom to choose research direction and to publish

The most distinctive features of the employment relationship fixed upon by the Full Court and emphasised below by French J are the freedoms of academics to set and pursue research priorities and to publish or share research results. These freedoms collide fatally with a duty to maintain the secrecy which employer patent ownership inevitably requires.[19] Either an implied term favouring university ownership would be freestanding, ie, "unsupported by a duty of confidence",[20] in which case it would oddly mean that the academic "would have been free to destroy the potential patentability of an invention by progressively putting research results into the public domain".[21] Alternatively it would be supported by an obligation of confidence, which is something so manifestly in opposition with traditional academic freedoms and practices that it cannot be maintained.

Either alternative is absurd enough to demonstrate that implying university ownership faces insuperable problems.

The Full Court stresses that the duty of confidence and the patent system are intimately intertwined: the "duty of confidence … buttresses and supplements the patent system by providing 'trade secrets' protection (i) before a patent has been applied for, and (ii) in relation to ideas and concepts which for some reason cannot be patented".[22] It sets out the law concerning breach of confidence for employees in some detail, stressing that it does so to emphasise the point that an employee who is engaged in an inventive capacity for the benefit of his employer will commonly obtain or generate confidential information which she would be precluded from communicating to others without prior consent. Plainly that type of restriction did not apply in this case of academic employment in research and teaching.

Significantly, the Full Court also points out:

> [W]hat is important to note for present purposes is that the duty of confidence can pose a significant obstacle to the mobility of employees engaged in research-related employment having applications in science and technology.[23]

Presumably this is a further argument against importing into academic employment contracts the kind of obligation of secrecy which would be implicit if such employees had a duty to invent and patent, and the university employer owned such output.

The Full Court also stresses that it would be odd to imply that the university would own the results of tasks that Dr Gray's contract "did not even require him to perform" since his research direction and approach was a matter for his discretion.[24]

[17] *University of Western Australia v Gray* (2009) 179 FCR 346 at [184].

[18] *University of Western Australia v Gray* (2009) 179 FCR 346 at [185].

[19] Since employer ownership can only be based on a duty to invent, and a duty to invent necessarily implies a duty of confidentiality, either to preserve the value of the employer's trade secrets as such, or to enable the employer to obtain a valid and commercial patent.

[20] See *University of Western Australia v Gray* (2009) 179 FCR 346 at [191].

[21] *University of Western Australia v Gray* (2009) 179 FCR 346 at [192].

[22] *University of Western Australia v Gray* (2009) 179 FCR 346 at [166].

[23] *University of Western Australia v Gray* (2009) 179 FCR 346 at [164].

[24] *University of Western Australia v Gray* (2009) 179 FCR 346 at [195].

External funding and collaboration

Also inconsistent with the implied term UWA contended for, and common in universities, was the fact that Dr Gray and his academic associates spent a very great deal of time and effort attracting funding from external sources. This meant that much of the research although undertaken at the university and by him in his capacity as an employee was actually not funded by UWA. As the Full Court points out "UWA may have wished to foster, but seemingly could not fund, Dr Gray's research".[25] Although administered by UWA it "can probably be inferred that the grants were made to Dr Gray as an established researcher and not to UWA as such".[26]

That much of the research undertaken by Dr Gray was collaborative with external researchers also militated against the conclusion that the academic employment contract was of a type that required or necessitated the implication of employer-ownership. Collaboration is a common or even inevitable incident of all such research pursuits within the academy. According to the Full Court, this fact was implicitly and correctly relied upon by French J as telling against "the exclusive appropriation of its product to one institution".[27]

The Full Court agreed with every aspect of French J's reasoning in relation to ownership. It approvingly cites passages from his reasons and reiterates his points about the nature of academe and universities. However, that the trial and appeal courts are united and settled in their conclusions is not to say that the Full Court was wholly satisfied with the outcome. It also recognises that the common law allows only for a black and white solution, ie either the employee or the employer fully owns the invention – shared ownership, a "shop right",[28] or a royalty right can only be based in contract and not on the common law.

If the approach UWA agitated for had been preferred, the employee would have absolutely no right to participate in potential commercial success. In contrast, sharing and participation is something that university intellectual property policies or regulations commonly provide for. If UWA had won on appeal it would have got more than if the validity of its own Patent Regulations had been upheld!

On a final note, the Full Court also emphasises a significant matter not earlier considered, which is the connection between teaching and research at a university:

> As the Professor of Surgery, Dr Gray had teaching and supervisory responsibilities to students. The extent to which the proper discharge of those responsibilities by a person in Dr Gray's position could or would require the sharing and dissemination of research results etc was not a matter raised before us, or, seemingly, before French J. It is almost unnecessary to add that it is the coalescence of teaching (with its dissemination of knowledge) and research (with its generation of knowledge) that is so characteristic of universities and (save in the case of the university researcher with no teaching responsibilities at all) differentiates the university academic from the researcher in private enterprise.[29]

Fiduciary duties

At trial, breach of a number of fiduciary duties was pleaded by UWA,[30] which French J said "rested upon the premise that Dr Gray was dealing for his own benefit with rights in relation to various inventions which UWA owned or in which UWA had an interest" (*UWA v Gray* at [1567]). Because his Honour had previously concluded that the university had no such proprietary interests, the critical premise founding the breach of duty allegations fell away. The Full Court did little more than agree

[25] *University of Western Australia v Gray* (2009) 179 FCR 346 at [200].

[26] *University of Western Australia v Gray* (2009) 179 FCR 346 at [200].

[27] *University of Western Australia v Gray* (2009) 179 FCR 346 at [204].

[28] In the United States, the "shop right" gives a royalty free license to the employer in some cases.

[29] See *University of Western Australia v Gray* (2009) 179 FCR 346 at [123].

[30] They were (a) a duty to deal with the property rights and interests of the university so as to protect and preserve that property and those rights and interests for the university; (b) a duty not to make any secret profit or receive any secret payment or obtain any secret benefit from any third party with whom he was dealing; (c) a duty to account for any such secret profit or secret payment or benefit; and (d) the duties of a trustee of such of the university's assets and property as were in his possession or control and/or under his direction from time to time.

with French J in relation to the fiduciary duties as pleaded. In any case, counsel for UWA was said to have conceded that if the university could not establish property or rights "in the inventions, in the right to apply for the patents, or in antecedent trade secrets which comprised the respective inventions" it had no case in relation to breach of duty.[31]

The approach to fiduciary duties in VUT v Wilson

Because of the way in which narrow and specific duties were pleaded in *UWA v Gray*, there was no consideration of any possible breach of fiduciary duties other than by misuse of (intellectual) property belonging to the employer. As pointed out on the appeal, *UWA v Gray* was not pleaded on the basis of "misappropriated 'opportunities' ".[32] and this stands in contrast with the approach taken in *VUT v Wilson*. In that case the opportunity to develop a computer system was held to have come to Professor Wilson in his university capacity, the external parties who approached him being interested in an association with VUT as such. The professor had initially worked on it as a university project but then took it over and completed it in his personal capacity, acquiring patents over the relevant technology as a result. That constituted a breach of fiduciary duty.

The court in *VUT v Wilson* (at [152]) quoted from *Queensland Mines Ltd v Hudson* (1978) 18 ALR 1 at 3 to the effect that it was necessary to examine the facts "to determine whether (the fiduciary) acted in a way in which 'there was a real sensible possibility of conflict' between his interest and the interest of (the principal)".[33] From that perspective, it was important to determine whether VUT had the willingness and capacity to carry out the project. Nettle J found that if the higher authorities in the university had been notified, they would have approved the project and tasked Professor Wilson and his associate to complete it. Plainly they had the capacity to do so, as that is what they actually accomplished in short order on their own behalf.

The approach to fiduciary duties in UWA v Gray

French J was not called upon to consider whether academic employees occupy a fiduciary position at all, but simply to assess the specific duties pleaded. Nettle J in his examination of the question in *VUT v Wilson* concluded that academics were similar to professional employees, who, although entitled to do other work, as such owe their employers "fiduciary obligations not to profit from their position at the expense of the employer and to avoid conflicts of interest and duty" (*VUT v Wilson* at [149]). Nettle J did not limit this to academics who occupy a management position: in Professor Wilson's case, Head of the School of Applied Economics and Head of the Centre for International Business Research and Education. However, if a central question is whether an opportunity comes to an academic in their personal or their university capacity, then the latter is more likely to be the case where the academic occupies a general management position such as Head of Department.

In any case, had the approach in *UWA v Gray* mirrored that in *VUT v Wilson*, it would have required first considering whether Dr Gray, as an academic employee, occupied a fiduciary position; then construing the exact nature of his fiduciary duties as such; and finally resolving whether he had acted in accordance with those duties.

Nettle J points out in *VUT v Wilson* (at [152]): "A fiduciary is not necessarily precluded from taking advantage of every opportunity of which he or she learns as a consequence of their fiduciary position." In an earlier passage he asserts that the exact scope of fiduciary obligations depends on an individual's contractual duties: "The scope of an employee's fiduciary duties to the employer depends as much as anything upon the nature and terms of the employment" (at [145]). This approach would require framing Dr Gray's fiduciary duties by reference to the work his contract required him to

[31] See *University of Western Australia v Gray* (2009) 179 FCR 346 at [214].

[32] *University of Western Australia v Gray* (2009) 179 FCR 346 at [214].

[33] See also *Victoria University of Technology v Wilson* (2004) 60 IPR 392 at [149]; [2004] VSC 33 per Nettle J: "a professional employee remains bound to account to the employer for gains derived as a result of the employee's fiduciary position and for opportunities of which the employee may learn in the course of employment; lest the employee otherwise be swayed by considerations of personal interest."

perform: to teach; conduct research; and "to organise and generally stimulate research among the staff and students".[34]

A critical difference with Professor Wilson is obviously that Dr Gray's work did not include managing a department, unit or faculty. The duty to teach is of no consequence here. As for the duty to conduct research, the decisions in *UWA v Gray* held that an academic researcher is free to set research direction and has no duty to invent, and no employer ownership term can be implied into an academic research contract. In that light, the academic researcher cannot be under a fiduciary duty to give the employer the opportunity to commercialise inventions, since he is under no obligation to pursue or produce them in the first place.

As to his duty to organise and stimulate research amongst staff and students, it is difficult to conceive of anything Dr Gray did being in conflict with that duty or somehow profiting for himself rather than performing this duty.

Reductionist approach to fiduciary duties?

However, we have to guard against a reductionist approach here; there is no point in so-called fiduciary duties that do not in truth rise above implied contractual obligations. As Conaglen argues, only some commonly pleaded duties are in truth peculiarly fiduciary in nature, these being:

> the principle that prohibits a fiduciary from acting in a situation in which there is a conflict between the duty that he owes to his principal and his personal interest; and secondly, the principle that prohibits a fiduciary from receiving any unauthorised profit as a result of the fiduciary position.[35]

In terms of employment, the question is whether *VUT v Wilson's* classification of all academic employees as "in a fiduciary position" means they owe more than all employees' duty to carry out their contractual duties with good faith or fidelity. Nettle J's statement that the nature of fiduciary obligations of an employee depends as much as anything "upon the nature and terms of the employment" (*VUT v Wilson* at [145] (see above)), risks hollowing out his conclusion that academics are in a fiduciary position to such an extent that it is essentially meaningless.

The critical question here therefore must lie in the second limb of Conaglen's identification, and be whether, despite the absence of a duty to invent, the requirement that the academic employee avoid receiving an unauthorised profit as a result of his fiduciary position is breached, in the particular factual circumstances of the case, by unilaterally patenting and commercialising an invention made in his capacity of employed researcher.

As Nettle J pointed out, academics are entitled to do other work, and to profit from it; but does that mean they are able to profit from work which they carry on in their capacity as employees, that is, as salaried researchers, while denying their employer any opportunity to so profit? Alternatively, while it may be correct to say that the employee here did not misuse university intellectual property to so profit, what about other university facilities, co-workers input, networks and support?

An academic's "position as fiduciary": What does it mean?

Perhaps the essential character of an academic's "position as fiduciary" is founded not so directly in the nature of his duties, but in the great freedom of research, collaboration and fund-raising, in autonomy of judgment and decision making. An incident of this freedom may arguably be that he has a fiduciary obligation not to deny his employer the opportunity to benefit from commercially valuable advantages that come his way.[36] Without suggesting that this was the case for Dr Gray, would it be right, for instance, for an employed academic researcher to take advantage of his freedom to set research direction and support it with external finance, to spend all his time on pursuing commercially valuable inventions, which he then turned to his own account without telling the university a thing about it?

[34] See n 8.

[35] See Conaglen M, "Fiduciary Loyalty: Protecting the due Performance of Non-fiduciary Duties" (Hart, Oxford, 2010) p 39.

[36] I leave aside here the question whether or not Dr Gray in fact did seriously engage with the university in relation to commercialisation of the inventions.

After all, the opportunity to profit from the inventions comes to these employees in their position as salaried academic researchers, which forms the linchpin of all their activities; in terms of *Chan v Zacharia* (1984) 154 CLR 178 at 199; [1984] HCA 36 at [24] per Deane J: "[it] was obtained or received by use or by reason of his fiduciary position or of opportunity or knowledge resulting from it". If all employed academics are indeed in a fiduciary position, as Nettle J suggests, then they arguably fall into a conflict of interest by exploiting the patent opportunity unilaterally, because the opportunity comes to them when roaming free in the research which they are being payed as professional employees to conduct with a considerable degree of autonomy.

Leaving the technicalities aside, academic researchers today are generally aware of universities' interest in pursuing opportunities to commercialise, or at least review its employees' inventions for that purpose, and of the importance of such opportunities to the continuing development and financial situation of the university. Intellectual property policies generally have this aim front and centre. In this case it was only the opportune failure of the intellectual property statute of UWA that resulted in the commercialisation of the research by Dr Gray alone. Thus, although not deprived of a property right, perhaps UWA did miss out on an opportunity to participate that it could legitimately expect to be offered, even if only on a first refusal basis. This point is pursued further below.

When were the inventions made?

A passage from the Full Court's reasons (reproduced above) refers to the significance of the questions raised by this case for the mobility of employees in the R & D sector.[37] How the law resolves competing claims over knowledge acquired or conceived by employees, whether in the form of unwritten know-how, inchoate ideas or patentable inventions, is generally very important.[38] One factor in resolving competing claims is the determination of when an invention is made for the purposes of the patent law. With a mobile workforce in the R & D sector, it will not be uncommon for an invention to be mentally conceived in one organisation and then reduced to a practicable form, tested, circumscribed and claimed in a patent application when an inventor is already employed somewhere else.

On the hearing of the special leave application, the High Court actively pursued this issue, because if none of the inventions were made when Dr Gray was employed by UWA, the contested ownership did not need to be considered.[39] At trial, Dr Gray had argued, with a very large measure of success, that the relevant inventions were made prior to his engagement. French J held that only one of the disputed inventions was made during his term of employment, but expressed uncertainty as to whether Dr Gray's contribution to it was sufficient to qualify him as an inventor.

The choice was between holding that the invention was made either at the time of mental conception, or of either the reduction to practice (commonly through application and testing of the idea) or the redaction of specific claims in a patent application. The former approach tends to place the relevant moment at the earlier intellectual stage rather than the application, prototyping, testing or commercialisation stage of R & D. In other words, on an orthodox view of the innovation process, it will be resolved by reference to a point earlier in the invention – innovation – commercialisation cycle. It will also mean that where gestation, testing and trials of inventions take very long,[40] one might have to go quite far back in time to examine the circumstances that gave rise to the invention. Keeping in mind that frequently there are multiple intellectual contributors to the invention process,[41]

[37] See text accompanying n 23.

[38] See van Caenegem W, "Mobility of Creative Individuals, Trade Secrets and Restraints of Trade" (2007) 14(2) *Murdoch University eLaw Journal* 279.

[39] The application was rejected because the issue that UWA wanted to agitate (ie, employer ownership) did not actually arise on the view of the facts taken by the trial judge and the Full Court as to when the inventions were made. The fact finding in that regard "did not give rise to any special leave ground": *University of Western Australia v Gray* [2010] HCATrans 11.

[40] Such as in the pharmaceutical and medical sectors, as in this case where the invention related to cancer treatment.

[41] Each of whom may qualify as co-inventors and therefore have an entitlement to be recorded as such in the patent application, and to shared ownership of the patent.

the resulting inquiry will often be attended by great complexity and uncertainty, requiring much historical evidence.

French J basically adopted the first approach:

- first, identify the "inventive concept" by referring to the terms of the relevant specification (the latter consisting not only of claims but also of descriptions etc); and
- secondly, ascertain the timing of the invention and identity of the inventor "by reference to that inventive concept".[42]

The UWA approach at trial had been rather to focus on the claims, and more specifically the narrowest of the claims, as relevantly disclosing the invention. This approach pays less regard to mental conception and more to the process of reduction to practice, "some elements of which may have found their way into the claims in the application" (*UWA v Gray* at [1433]).[43]

In other words, French J adopted the broad approach, which was then endorsed by the Full Court, partly by reference to another recent decision of the same court in *Polwood Pty Ltd v Foxworth Pty Ltd* (2008) 165 FCR 527; 75 IPR 1.[44] Therefore all inventions except one were said to have been made before Dr Gray was employed by UWA and were thus unassailably his. Of the other, it could not clearly be said that he was its co- inventor.

Implications of UWA v Gray for other employees

Implications concerning implied terms

As indicated above, the trial judge and the Full Court were in agreement that academic employment contracts are a special category or class. They differ in very crucial respects from other forms of employment. The implications of the decisions for researchers employed in industry are therefore quite limited: the general principle expounded in *Sterling* continues to apply to them undiminished.

Crucially, researchers in industry will normally be hired to invent, ie to search for and arrive at new products and processes, whether patentable or not. Advancing the employer's interests through R&D is central to the employment relationship. Even if a duty to invent is not specifically mentioned, a duty to research in that context is sufficient to found an employer-ownership implication. Industrial researchers generally conduct their research either upon specific instruction to solve particular problems, or within restricted parameters with limited discretion. The ability to freely choose research direction is limited, the exception rather than the norm, and if an employed researcher has such discretion at all, it will generally be quarantined from directed research work.

What remains most significant in industry is to determine whether a particular employee was employed to research or not: the terms of the contract of employment must be construed to identify the exact scope and nature of the employee's duties. Often those duties are not clearly expressed, or only in the most general terms, or have evolved and mutated over time.[45] Courts have tended to take a careful and narrow approach to construction here: for instance, in *Spencer Industries Pty Ltd v Collins* (2003) 58 IPR 425; [2003] FCA 542, where the sales manager learned of deficiencies with products from clients and devised improvements to them, these were considered to be his own inventions. As Sales Manager he was found to have a duty to use his technical skills to demonstrate products, but not to invent them or improve upon them. Nor had he been specifically directed to do so. The submission of Spencer Industries "that because Mr Collins had a duty as Sales Manager of Spencer Industries to advance the sales of Spencer Industries any invention made by him which was capable of advancing

[42] See *University of Western Australia v Gray* (2009) 179 FCR 346 at [221].

[43] *University of Western Australia v Gray* (2009) 179 FCR 346 at [221].

[44] See *University of Western Australia v Gray* (2009) 179 FCR 346

[45] See eg, *Spencer Industries Pty Ltd v Collins* (2003) 58 IPR 425; [2003] FCA 542, where there was no written contract at all for Collins who was a Sales Manager with Spencer Industries. The court held (at [78]) that therefore "in considering the scope of Mr Collins' employment, it is necessary to give consideration to the nature and seniority of the employee's position with Spencer Industries, the nature of his duties as Sales Manager and whether he received a specific directive relating to the invention."

Spencer Industries' sales was an invention made by him within the course and scope of his employment" was rejected as "unacceptably broad in ambit" (at [82]).

Secondly, it will be important to determine whether the invention has a sufficient connection to the area or nature of the research which the employee is engaged to undertake. Employees who arrive at some breakthrough that is not connected to that research, may well be entitled to retain the benefit of it, even if that breakthrough came to them during their employment on research mandated by the employer. They may also be entitled to pursue it for themselves, as long as they do not misuse the employer's time and resources in the process, or enter into competition with the employer in breach of their duty of fidelity or the fiduciary duties of some professional or managerial staff.

Implications of the findings concerning time of the invention

The implications of the other limb of *UWA v Gray*, in relation to when an invention is made for the purpose of determining ownership, are more universal, and obviously not limited to an academic environment. With the approach adopted in *UWA v Gray* there is a greater risk that an employer devotes considerable resources to "reduction to practice" of an invention only to find that an employee in fact had arrived at the inventive concept before commencing employment and on that basis claims sole ownership. Alternatively, it makes it more likely that a previous employer has such a claim because the employee arrived at the inventive concept in pursuance of a duty to research or make inventions for that employer.

It is of course possible to deal with the first alternative, where the employee has a claim to ownership which he does not hold on behalf of, or need to account for to his previous employer, by way of a contractual agreement with the new employer. Although it is not possible to vary or determine *inventorship* contractually it is possible to deal with *ownership* in express terms.[46] In other words, it would be possible to provide, for instance, that the employer will be entitled to any patents an application for which is filed after the employee commenced employment, even if that employee conceived of the invention previously, as long as that invention relates to the employee's present research duties.

Alternatively, it can be provided that the *employee* is entitled to the benefit of all inventions conceived before entering the firm's employment, even if a patent with that employee as nominated inventor is filed during the period of employment. If an employee is under a duty to invent, conceives of an invention but only after termination, herself or through a later employer, files for a patent over that invention, then the claim of the first employer will have to prevail. So there are considerable difficulties attached to an employee contracting with a new employer in relation to inventions conceived of previously. Therefore it would be better to deny any rights to a future employer, by express contractual terms, in relation to inventions conceived in previous employment. The second option, in other words, presents less difficulty. If a dispute results, it is then logically only between the ex-employer and the inventor in her individual capacity. It need not involve the new employer.

Whatever the best option might be and this will depend on all the circumstances, the decision in terms of timing of inventions clearly suggest that some contractual solution be developed to cater for the kind of situation that emerged in *UWA v Gray*. This may not be straightforward, but at the very least considering this matter at the outset and in relation to termination of an employment relationship will bring potential issues with particular inventions to the fore.

Sirtex cross-claim against Dr Gray

Although UWA did not win against Dr Gray, Sirtex' cross-claim against him *was* successful. A company established by various interests external to UWA, Sirtex was a vehicle for the commercialisation of technology associated with the disputed inventions. These were transferred to Sirtex in 1997 by Dr Gray and the Cancer Research Institute, a body established earlier to support his research. Sirtex was floated in 2000, and Dr Gray was then a Director of the company. UWA had no involvement with Sirtex.

[46] See *Stack v Davies Sheppard* (2001) 108 FCR 422; 51 IPR 513; *Polwood Pty Ltd v Foxworth Pty Ltd* (2008) 165 FCR 527; 75 IPR 1.

By 1999, officers of UWA had formed the view that the university "might have some claim" in relation to the inventions it knew were being commercialised (*UWA v Gray* at [5]). The then Vice-Chancellor, Professor Schreuder, wrote to that effect to Dr Gray. However, Dr Gray did not disclose this letter to Sirtex and furthermore, warranted in a deed "that to the best of his knowledge there were no pending claims or applications in respect of patents, know how rights or intellectual property rights" which were the subject of the transfer agreement (*UWA v Gray* at [1601]).[47] In his general dealings with Sirtex at the relevant time, Dr Gray remained silent about UWA's claims, although it was obviously in Sirtex' interest to know about them before making commercial arrangements.

When UWA brought the action against Dr Gray in 2004 it naturally also sued Sirtex, claiming that it had knowingly participated in his breaches of fiduciary duties, and seeking orders that Sirtex held the inventions on trust for the university and requiring their transfer. Of course the UWA claims against Sirtex were ultimately dismissed, since they depended for their success upon the court allocating ownership of the inventions to the university. However, the fact that Sirtex won the case did not mean it had no losses because it had incurred considerable costs fighting the action, not all of which were catered for by the relevant costs order. The recovery of these legal expenses was the essential purpose of Sirtex' cross-claim against Dr Gray.[48]

Finding for Sirtex, French J held that Dr Gray both breached his duties as a Director of Sirtex and engaged in misleading and deceptive conduct in contravention of s 10 of the *Fair Trading Act 1987* (WA) by not drawing to Sirtex' attention correspondence from Professor Schreuder which clearly indicated that UWA could well inquire into its rights to the relevant intellectual property. His silence was "such as to convey the wrong impression that no possibility existed that UWA had or was likely to be interested in the intellectual property underpinning the Sirtex float" (*UWA v Gray* at [1611]). The court held that if Sirtex had been informed by Dr Gray, it would have been advised to make further inquiries of UWA, which would have afforded it the opportunity to 'resolve the matter with UWA' and avoid being exposed to the litigation at hand (at [1612]).

As French J said (at [1174]):

> In my opinion, despite this knowledge, [Dr Gray] decided not to disclose the possibility to Sirtex. In all likelihood that was because he took the view that there was not much chance that the University would follow through. He had convinced himself that the Schreuder correspondence was part of a tactic by Professor Robson to bring about his resignation. He had resigned and therefore there would be little or no purpose in UWA pursuing him. He took a calculated risk in not disclosing the correspondence to Sirtex. It was, as Sirtex alleges, a deliberate non-disclosure.

Some vague and indirect references to the state of his relations with UWA, conveyed to a solicitor involved with Sirtex who Dr Gray maintained should have inferred, because of his apparent general understanding of intellectual property policies at universities, that UWA might have had a claim, also did not constitute sufficient notice.

The cost of proceedings

The damage that befell Sirtex was identified by French J as the loss of the opportunity to avoid "the instigation of these proceedings and to resolve matters in advance with UWA" (*UWA v Gray* at [1612]). Quantifying this loss was left to a separate hearing before Barker J. Where damages for the deprivation of a commercial opportunity are to be assessed, they should be ascertained "by reference to the Court's assessment of the 'prospects of success of that opportunity had it been pursued' ".[49] Relying on the evidence contained in French J's judgment, Barker J considered a range of hypothetical outcomes of an early approach by Sirtex to UWA. He concluded that:

> In the circumstances I consider it highly probable that not only would an inquiry from Sirtex to UWA have resulted in negotiations concerning the release from UWA of any claim of ownership to the

[47] It was found that other Sirtex directors were ignorant of the UWA claims.

[48] The measure and assessment of the damages became the subject matter of a separate hearing, referred to further below.

[49] *University of Western Australia v Gray (No 28)* (2020) 185 FCR 335 at [57]; [2010] FCA 586, citing a passage from *Sellars v Adelaide Petroleum NL* (1994) 179 CLR 332 at 355; [1994] HCA 4 (Mason CJ, Dawson, Toohey and Gaudron JJ).

> relevant intellectual property, but that an accommodation would have been arrived at, comprising a release given in consideration of a share allotment in Sirtex in favour of UWA in the forthcoming float of the company. For the reasons I have expressed above, I consider it highly probable that that share allotment would have come out of either the allotments earmarked for Dr Gray and/or CRI.[50]

However, Barker J then had to decide whether a discount should be applied based on the probability of the other hypothetical outcomes had Sirtex approached UWA: no settlement at all (and hence litigation); a settlement without any consideration; a settlement on the basis of a share issue alone; or a settlement with a royalty. Given the tone of some of the mutual communications and dealings, none of these possibilities was to be ruled out entirely. However, he considered them so unlikely as to warrant a discount of only 14%, to 86% of Sirtex' legal costs as allowed. For Sirtex the financial consequences of Dr Gray's failure to warn them had been considerable, as it incurred such costs and disbursements of over $5 million.[51]

Recovering costs as damages

Usually who bears the costs is finally decided by the court hearing the proceedings, the starting principle being that "costs ordinarily follow the event". In other words, the party that wins will get their costs from the party that loses. Normally these costs are assessed (or "taxed") on a party to party basis, although in some circumstances it is on an indemnity basis, which more closely approximates the real costs reasonably incurred.[52] As Barker J points out: "That there may be a discrepancy between what the Court orders by way of party to party costs and on an indemnity basis has long been understood by courts and lawyers."[53] It is a fiction that benefits the losing side against which party to party costs are awarded, leaving the winner out of pocket. But a longstanding principle prevents recovery of costs as damages either in the primary or in a subsequent proceeding. Relevantly this means that a winning party cannot normally sue for a separate order for damages which could cover the shortfall between *actual* costs reasonably incurred, and the nominal costs awarded as assessed. Barker J held that this also applies to costs incurred in a primary action and claimed in a related cross-claim, as was here the case.

However, Barker J also held that this longstanding principle was not absolute in its application. Having reviewed the authorities and some related academic writings he concluded that

> in a situation where a party is put to the trouble of maintaining an action or defending an action by reason of the wrongdoing of another party, and is entitled to an indemnity from that party, then absent usual principles such as those relating to mitigation of damage and the reasonableness of legal costs incurred, they should be able to recover as damages those costs expended either in a separate action subsequent to the primary action or in a related proceeding in the primary proceeding … In public policy terms, it may well serve the useful purpose of encouraging settlement of proceedings.[54]

Holding that the case at hand was just such a situation, Barker J found for Sirtex: its costs in the UWA proceedings were recoverable as damages against Dr Gray, by whose fault they had been incurred.[55] Sirtex had already recovered $3 million based on the trial costs order against UWA, but this being on a party to party basis,[56] it left a claimed shortfall of more than $2 million compared to its

[50] *University of Western Australia v Gray (No 28)* (2020) 185 FCR 335 at [143]; [2010] FCA 586.

[51] It is well known that the parties were involved in numerous other hearings and appearances: the 50-day trial before French J was No 20 of the matters determined by a court, Barker J's decision was No 28. There were also many separate but related actions between Dr Gray and Sirtex; Dr Gray and the Cancer Research Institute Inc; and between Sirtex and the Cancer Research Institute Inc.

[52] The award can also be on a solicitor to client basis, which, to a lesser extent, also more closely approximates the actual costs reasonably incurred.

[53] *University of Western Australia v Gray (No 28)* (2020) 185 FCR 335 at [24]; see also at [45] (the notion that taxed costs are the same as costs reasonably incurred was referred to as "a fiction" in *Lonrho plc v Fayed (No 5)* [1993] 1 WLR 1489 at 1510 (Evans LJ)).

[54] *University of Western Australia v Gray (No 28)* (2020) 185 FCR 335 at [51].

[55] They were all held directly caused by the breaches of duty found by French J.

[56] See *University of Western Australia v Gray (No 21)* [2008] FCA 1056.

real costs. Barker J allowed the most substantial items claimed in their entirety: the legal costs and disbursements incurred in the proceedings, and those payed to Sirtex' lawyers, Phillips Fox, prior to the trial. After disallowance of some lesser items, approximately $1.9 million was thus recoverable as damages from Dr Gray.

Significance of full and frank disclosure

The financial consequences for Dr Gray were thus considerable, and therein lies some sort of warning. Usually where intellectual property is spun out of universities, there are multiple parties involved: (co-) inventors, universities and departments, their multiple officers and administrators, institutional and corporate vehicles, backers and financiers. In such circumstances, chain of title is absolutely critical. Proper judgments about legal rights are entirely dependent on full and continuous disclosure by all interested parties, in good faith and with mutual confidence. Drawing on a private conviction that a claim is without merit or basis, or inspired by ulterior motives, carries the legal risk that the resulting failure to communicate relevant information breaches obligations under the corporations law and the *Trade Practices Act 1974* (Cth) or State fair trading laws. It is much better to err on the side of caution, given the complexities and uncertainties of the relevant law. Furthermore, in a practical sense, full and frank disclosure is an essential element of the diligence required from all parties for success in complex and long term R&D and commercialisation projects.

Universities and inventions in the future

An academic duty to invent?

Universities might well infer from the trial and appeal courts' reasons that to secure intellectual property rights academic contracts of employment should henceforth include a duty to invent. But it seems clear that placing academics under a duty to invent would fundamentally threaten the role and position of universities in society, because of the attendant implications, not the least of which would be that it would inevitably result in an obligation of silence. It would sit awkwardly with academic freedom, in terms of research direction and publication. A further issue might well be how to structure proper consideration adapted to the performance of this particular additional duty.

So it is unlikely that universities will consider following that course. More probable is that they will at least ensure their intellectual property statutes, regulations and policies are in proper order.

Express provision is certainly preferable.

No doubt most of those do and will continue to mandate a priori university ownership of academic inventions, with some employee entitlements. But one must now ask where there is a duty only to research and not to invent, the terms of any IP policy or regulation mandating university ownership have a legitimate basis.[57] And even if so one might question whether a priori universally mandated rules are *good policy*, given the recurring examples of great dysfunction attending rivalrous relationships between university and academic.

Certainly the *UWA v Gray* decision points to the importance of *some* express provisions being agreed upon by academic employees and their universities at the outset of the employment relationship. Reliance on the default position is not desirable: it straddles in a complicated manner such varied areas of law as contractual terms implied by law; terms implied on the specific facts; fiduciary obligations; obligations of confidence based in contract and/or equity; and general employment law (eg, in relation to misuse of university resources). The approach to the relevant time of invention, now approved in two recent Full Court decisions, has added another aspect of uncertainty and difficult.

The Full Court also relevantly states the following about the desirability of the common law approach:

> while our conclusion recognises a distinction between the ownership of employee inventions in universities and in private sector business entities, we should not be taken as suggesting that the solution reached by use of the implied term in law is necessarily a desirable one in either case. What

[57] That much of the relevant research is actually funded from outside sources is one relevant consideration in this regard.

> we do emphasise is that there are clear reasons for not implying such a term as to inventions in a case such as this. If a less crude and more fair and reasonable result is to be achieved which balances the respective interests of a university and its academic staff members, this will need to be done by or under legislation or, if it could be devised, by an express contractual régime appropriate to the circumstances of the individual case.[58]

How to structure IP policies?

But what form should the terms of a university IP policy then take? Interestingly the Full Court's statement seems to envisage that a solution either be devised "by or under legislation", or by express terms "appropriate to the circumstances of the individual case". That does not seem to allow much room for the present approach of most universities, which, as UWA attempted to do, promulgate some statute, policy or other IP instrument which purports to import universal terms into every contract of academic employment.

These most commonly envisage university ownership and a right to some remuneration for the academic inventor, and perhaps a department. But it is at the very least odd to give ownership to the employer where the making of inventions is entirely a matter of discretion for the employee, as it would continue to be in the absence of a duty to invent.

In fact, are such terms effective in the absence of a duty to invent being expressly added to the usual list of academic duties?[59] Why should a university be entitled to an invention made by an academic employee who neither has the duty to, nor is being payed to invent, and is not under some associated obligation of confidence or secrecy?[60] Alternatively, if a provision is expressed in terms of inventions made "in the course of employment", or "under the contract of employment" or the like, if the making of inventions is not a duty under such contract, can the invention truly be said to have been made *in the course of employment* or under the terms of the contract? One can say that it was made *at the time* a person is employed by the university perhaps, but that is by no means the same thing.

Considering the question then, for argument's sake, on the basis that either universities cannot validly incorporate a priori mandatory and universal terms, or alternatively that it is undesirable to do so, since it creates an incentive for staff to trade with others outside the university concerning their inventive ideas and concepts, how should universities approach the matter? We have to accept two factors: first, in the absence of a duty to invent in an academic employment contract, the position of the university is actually quite weak; and secondly, any argument based on fiduciary duties, except perhaps to some degree where an academic occupies a management position, is uncertain and will turn on the particular facts. As a result, the approach to patentable inventions in universities will have to be collaborative, incentive based and envisaging mutual benefit, good faith and respect.

First and foremost, universities must ensure that they can offer academics that are so minded effective assistance in bringing inventions to market. Universities must also recognise that wider collaboration is an essential component of both the research (eg, for the generating of external research funding as well as for the collaborative work itself) and the commercial stage. Co-ownership is perhaps an option and what the Full Court had in mind when writing the above quoted words, but arguably that is just as difficult as university ownership to achieve without a change in the Commonwealth legislation.

Conclusion

The only remaining option is that universities with the capacity to do so, *encourage* inventive academics to disclose their inventions to the university, on the promise of genuine and effective support and advice relating to the commercial route, and in exchange for a fair return and ongoing partnership if desired. Some financial inducement may be offered for that purpose. This approach

[58] *University of Western Australia v Gray* (2009) 179 FCR 346 at [211].

[59] Normally expressed in terms of research, teaching and supervision, and some element of service or management.

[60] And this in circumstances where no real return or consideration to the academic is guaranteed, as opposed to only a residual right to partake of the commercial returns from exploitation should they eventuate.

implies abandoning the adoption of mandatory and universal a priori rules, regulations or policies in favour of voluntary and tailored ex post agreements.

With the making of such agreements in mind, an employee who is interested in the commercialisation of an invention should be *required* to notify the university so that it is guaranteed the *first opportunity* to treat with her and arrive at a tailored agreement. However, the academic should retain the right ultimately to refuse the university's terms – the point is that the university as employer should not be denied the opportunity to treat with the employee, but that it is not in a position to enforce its will if the employee is not satisfied with what is proposed.

Universities should also publish to all academic staff optional model terms and their competing merits, clarifying the various legal, commercial and financial alternatives considered viable for the university and the individual. These may include shared ownership, university ownership with an employee royalty, employee ownership with university user rights or commercial rights etc. Only an open and communicative approach surrounding the advantages and limitations of the university's involvement will encourage inventors to come forward, deal with the university on an equally frank and open basis (because not threatened by a university "land grab"), enjoy the benefits of the university's relevant expertise, and have a continuing sense of involvement.

The employing university is in most cases the incumbent, the obvious first port of call, and provided it has the right approach and expertise, the organisational structure within which an ongoing employee would most often prefer to proceed. This ex post approach, based on an obligation to notify, and treating on terms particular to each individual case will allow the kind of flexibility that will maximise chances of success.